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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,359	06/02/2006	Yoshihide Gonjo	291624US3PCT	3637
22850 7590 01/23/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER GREENE, JASON M				
ART UNIT 1797		PAPER NUMBER		
NOTIFICATION DATE 01/23/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/581,359

Applicant(s)

GONJO ET AL.

Examiner

Jason M. Greene

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-9 is/are allowed.
- 6) ☒ Claim(s) 10 and 11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CIS-300)
Paper No(s)/Mail Date 6/2/06, 8/15/06

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claims

1. Claims 6 and 10 each recite the exchanger comprising a membrane as part of the structure, and then continue by reciting "the membrane" to refer to a another subsequent membrane in the stacked arrangement. The Examiner suggests that Applicants rewrite the second references to the membrane as "another membrane" instead of "the membrane" to better clarify that the second membrane mentioned in the claim language is a different membrane than the first membrane mentioned.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al. (US 5,382,478).

Chow et al. discloses a temperature-humidity exchanger (92) comprising a temperature-humidity exchange stacked body in which a moisture permeable

membrane (not shown, see Fig. 5 and col. 8, lines 7-18) which transmits water therethrough, a dry gas separator (one of the plates), in which low temperature dry gas is caused to flow, a moisture permeable membrane, and a wet gas separator (another of the plates) in which high temperature wet gas (from the active section, see claims 4 and 6) is caused to flow are repeatedly stacked in the stated order, wherein in the temperature-humidity stacked body, a dry gas exhaust manifold (at the entrance to the active section) of the temperature-humidity exchange stacked body on a first side is made to communicate with a dry gas supply manifold (at 44) of the stacked body on a second side, a wet gas exhaust manifold (at 44) of the stacked body on the second side is made to communicate with a wet gas supply manifold (at the exit from the active section) of the stacked body on the first side, wherein an outlet retainer plate (50), the stacked body, and an inlet retainer plate (42) are stacked in the stated order, wherein the wet gas is caused to flow from a high temperature side to a low temperature side, and the dry gas is caused to flow from the low temperature side to the high temperature side in Figs. 2A, 2B, 3-7, 10A and 10B and col. 6, line 17 to col. 10, line 67.

Chow et al. does not disclose the temperature-humidity exchanger being oriented such that the high temperature wet gas flows from the upper side to the lower side or the exchanger comprising a plurality of stacked bodies.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to change the orientation of the apparatus of Chow et al. from horizontal to vertical such that the humidification section is below the active section in that shifting the orientation of an apparatus is merely a choice of design. For example,

one of ordinary skill in the art would have recognized that the apparatus could be installed vertically in a situation where space considerations made horizontal installation impossible or impractical.

It would also have been obvious to one of ordinary skill in the art at the time the invention was made to duplicate the stacked body as a plurality of stacked bodies in that duplicating parts for a multiplied effect is merely a choice of design. See *St. Regis Paper Co. v. Bemis Co., Inc.*, 193 USPQ 8, 11.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 10 and 11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,311,760 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other.

Claim 1 of the '760 patent recites the exchanger of instant claims 10 and 11 except for the temperature-humidity exchanger being oriented such that the high temperature wet gas flows from the upper side to the lower side or the exchanger comprising a plurality of stacked bodies.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to change the orientation of the apparatus of claim 1 of the '760 patent from horizontal to vertical such that the humidification section is below the active section in that shifting the orientation of an apparatus is merely a choice of design. For example, one of ordinary skill in the art would have recognized that the apparatus could be installed vertically in a situation where space considerations made horizontal installation impossible or impractical.

It would also have been obvious to one of ordinary skill in the art at the time the invention was made to duplicate the stacked body as a plurality of stacked bodies in that duplicating parts for a multiplied effect is merely a choice of design. See *St. Regis Paper Co. v. Bemis Co., Inc.*, 193 USPQ 8, 11.

Allowable Subject Matter

6. Claims 6-9 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

Okamoto (US 5,965,288) discloses a temperature-humidity exchanger comprising a moisture permeable membrane (22a) that transmits moisture therethrough, a dry gas separator (26) in which low-temperature dry gas is caused to flow, and a wet gas separator (24a,24b) in which high-temperature wet gas is caused to flow, wherein the moisture permeable membrane, the dry gas separator, another moisture permeable membrane, and the wet gas separator are repeatedly stacked in this stated order, and wherein the dry gas separator and the wet gas separator comprise a plurality of channel grooves that are open to direction in which the channel grooves come into contact with the moisture permeable membrane and are arrayed parallel to one another in Figs. 1-3 and 6 and col. 2, line 48 to col. 7, line 5.

Chow et al. discloses a temperature-humidity exchanger wherein a flow of dry gas in the dry gas separators and a flow of wet gas in the wet gas separators are counterflows in Figs. 2A, 2B, 3-7, 10A and 10B and col. 6, line 17 to col. 10, line 67.

The prior art made of record does not teach or fairly suggest the exchanger of claim 6 wherein the dry gas separator and the wet gas separator comprise a plurality of channel grooves that are divided by half in the stacking direction, an aggregate communication groove that is made to communicate with both end portions of the

plurality of channel grooves, for aggregating gas caused to flow through the channel grooves to at least one, and a supply manifold and an exhaust manifold that are made to communicate with the aggregate communication groove and penetrate the separators in the stacking direction.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Okada et al., Sasamoto, Reid, Yang et al., Wei, Salemme, TeGrotenhuis et al., Mazzucchelli et al., Kusano et al., Lavender and WO 2006/107067 A1 references disclose similar exchangers.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (571) 272-1157. The examiner can normally be reached on Monday - Friday (9:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason M. Greene
Primary Examiner
Art Unit 1797

/Jason M. Greene/
1/16/09

jmg
January 16, 2009